

the Examiner is requested to consider the following points in reconsidering the patentability of the claims.

Figs. 11a and 11b of van Ketwich show a perspective view and a top view, respectively, of an input device (col. 11, lines 9-10). The input device has six sides, i.e., one front or top side, one backside, and four edge sides. The front side and the backside are sides that have relatively large areas, in relation to the edge sides. Therefore, it is unambiguous that the four sides connecting the front side to the backside are edge sides of the input device.

Claims 1 and 19 of the present application state “the touch surface is arranged on the edge side of the apparatus,” the “apparatus” referring to the claimed “handheld or pocket-sized electronic apparatus.” Therefore, considering the apparatus of van Ketwich as a whole, the touch screens (1811a, 1811b, 1811c) of the input device are clearly arranged on the front side of the input device. There is no other way to interpret Figs. 11a and 11b or the text of van Ketwich than that the device has four edge sides and those edge sides connect the front side with the backside of the input device. The four edge sides are void of touch surfaces. Only a cable is shown attached to one of the edge sides.

The Examiner reasons that the protrusions on the front side of the input device of van Ketwich should be interpreted as edge sides of the input device. It is submitted such reasoning is erroneous, e.g., no one would consider each edge of the keys of a conventional keyboard edge sides of the keyboard. Thus, even though the touch screens of Figs. 11a and 11b in van Ketwich protrude from the front side of the input device and have edges, the position of the touch screens cannot be interpreted as

being on an edge side of the input device. The edge of a touch screen is not an edge side of the input device; instead, in van Ketwich it is a protrusion from the front side.

Both claim 1 and claim 12 require the touch surface to be arranged on the edge side of the apparatus, which is not a protrusion from the front side.

Further, the front side and backside on a typical handheld or pocket sized apparatus differ very much from the edge sides, in that an edge side is much narrower than a front side or a backside. To make it possible to mount a touch panel on the edge side of a device, it must be possible to construct a touch panel as narrow as the edge side of the device.

In van Ketwich, it appears the area where the touch panels are placed are large because van Ketwich does not anywhere consider, or deal with, the problems one would encounter trying to place one of his touch panels on a limited space such as the edge side of a handheld device. Because of the unusable space a conventional touch panel requires in order to accommodate two membranes and a spacer, attempting to place a conventional touch panel on an edge side becomes a critical matter resulting in touch panels being placed on the front side or back side of a handheld device where the space is comparably larger than the edge sides. Thus, it would not have been apparent, obvious, or a matter of routine design choice to move a conventional touch surface from a front side to an edge side because the limited space of the latter would deter the skilled artisan from doing so.

The construction of a conventional plane touch panel involves putting two membranes together, with a spacer running between the membranes along the border-side of the membranes. This has the disadvantage that the spacer occupies a specific

area (generally, minimum 2 mm width), and the area within a specific distance from the spacer (generally, another minimum 2 mm) is unusable because the tension-force required to depress the membrane within such area is too large. In a standard touch panel, this renders typically 4 mm on each side of the panel unusable. Over the total width of the touch panel, 8 mm is thus unusable. With a touch panel placed on the front side or backside of a device, this distance is not of much importance because the front side and the backside are comparatively large. If the touch panel, however, is to be placed on the edge side of the device, this is critical because it is unacceptable to have 8 mm of unusable space on an area that might be only 6-12 mm wide. Thus, the skilled artisan would not be led to move a conventional touch panel to an edge side.

In regard to claim 12, there is no description at all in van Ketwich of how to bend a conventional touch screen and there is certainly no description of a touch surface being formed by an outer resilient foil that is clamped so that, as a direct result of its striving to assume a flat form, it is tensioned to a convexly single-curved surface.

In a conventional touch screen, the contact between two opposing surfaces are used to determine the position of the "touch" and these two opposing surfaces are kept at a distance from each other, when not actuated, by means of spacers. It is submitted a person skilled in the art in trying to implement the teachings of van Ketwich would more likely arrange one fixed U-shaped surface, provide a second surface on top of the fixed surface and separate the second surface from the fixed surface by means of spacers. In such a design, there is no need for the claimed resilient outer foil having a resilience that forms a convexly single-curved, resilient surface of the foil as a direct result of its striving to assume a flat form, because the person skilled in the art would

likely use spacers to keep the surfaces from unintentionally getting in contact with each other. In the invention according to claim 12, the clamping and the resilience of the outer foil results in the outer foil arcing and keeping its form without the need of spacers.

Additionally, the clamping and the resilience of the foil according to the claimed invention, i.e., achieving a convexly single-curved surface as a direct result of striving to assume a flat form, results in a touch surface of enabling uniform activation force over substantially the entire touch surface. See Fig. 11a in the subject application. In other words, the force required for activation at a specific position on the touch surface does not differ from the required force at any other position of the touch surface. In contrast, the required activation force at different positions of a conventional touch screen varies, as depicted in Fig. 11b of the subject application. This difference is a result of a totally different philosophy regarding the use of foil in a touch surface. In the conventional touch screen, the activation touch results from a stretching of the foil and in the touch surface according to the present invention, the activation touch results from a movement of substantially the entire foil, except from the clamped edges. Thus, there is no need for stretching the foil.

The advantageous effect of a touch surface that is formed by an outer side of a resilient outer foil that "is clamped so that, as a direct result of its striving to assume a flat form, it is tensioned to a convexly single-curved resilient surface," as claimed in claim 12, is that the touch surface may be made small in order to fit on the edge side of a handheld or pocket sized apparatus without any spacers that decrease the effective area of the touch surface. There is essentially no "dead area" in the touch surface according to the invention, and the required force for activating the touch surface does

not vary depending on the position of the activation of the touch surface, because the foil of the present invention does not have to be stretched in order to enable an activation.

Reconsideration and allowance of claims 1-5, 7-13, and 15-19 are earnestly solicited. In order to provide adequate time for the Examiner to consider the present requests, a Notice of Appeal is also being filed.

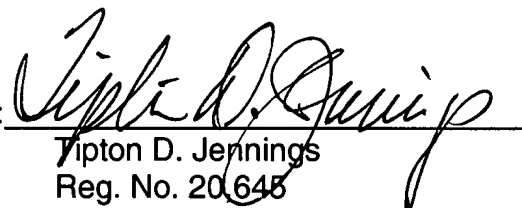
Please grant any additional extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.  
571.203.2750

Dated: June 7, 2005

By:

  
Tipton D. Jennings  
Reg. No. 20,648